

=> s polyvinyl and phthalic and anhydride and sulfate

73131 POLYVINYL
162 POLYVINYL
73247 POLYVINYL
(POLYVINYL OR POLYVINYL)
45918 PHTHALIC
2 PHTHALICS
45918 PHTHALIC
(PHTHALIC OR PHTHALICS)
183390 ANHYDRIDE
30027 ANHYDRIDES
193050 ANHYDRIDE
(ANHYDRIDE OR ANHYDRIDES)
445954 SULFATE
85603 SULFATES
487224 SULFATE
(SULFATE OR SULFATES)

L17 20 POLYVINYL AND PHTHALIC AND ANHYDRIDE AND SULFATE

=> d L17 1-20 ibib abs hitrn

L17 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:736148 CAPLUS

DOCUMENT NUMBER: 137:253068

TITLE: Flushable tampon applicators based on polymer blends

INVENTOR(S): Zhao, Jean Jianqun; Gilbertson, Gary Wayne; Gray,
Brian Francis; McAvoy, Drew Clifton; Quiram, Daniel
Jonathan; Wnuk, Andrew Julian

PATENT ASSIGNEE(S): The Procter & Gamble Company, USA

SOURCE: PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002074352	A1	20020926	WO 2002-US8052	20020315
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2003036721	A1	20030220	US 2001-810292	20010316
US 2003040695	A1	20030227	US 2001-944672	20010831
PRIORITY APPLN. INFO.:			US 2001-810292 A	20010316
			US 2001-944672 A	20010831

AB Disclosed are flushable tampon applicators which comprise a combination of thermoplastic materials and filler such as calcium carbonate and talc, and which readily disintegrate in water such as toilet water for improved disposal and reduced environmental concerns regarding the destruction of these applicators. The flushable tampon applicators comprise a combination of high mol. wt. polyethylene oxides, low mol. wt. polyethylene glycols, biodegradable polymers, and filler, wherein this combination of water-dispersible thermoplastic polymers, biodegradable thermoplastic polymers, and filler provide flushable tampon applicators that are readily disposed of and that are smooth, soft, flexible, and non-sticky or non-slimy to the touch before and during use. For example,

an injection molded thermoplastic compn. was a blend of polyethylene glycol, Eastar 14766, calcium carbonate, magnesium stearate, Plasthall 645 and DC 7051 (15:62:15:1:5:2).

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:615748 CAPLUS

DOCUMENT NUMBER: 137:170632

TITLE: Manufacture of triboluminescent materials in paper products for wrapping or gift papers

INVENTOR(S): Geddes, Norman James; Sage, Ian Charles; Rozelaar, Christopher Frank; Mason, Ian Robert; Bourhill, Grant Hannah

PATENT ASSIGNEE(S): Qinetiq Limited, UK

SOURCE: PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002062915	A1	20020815	WO 2002-GB452	20020204
WO 2002062915	C1	20030320		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2001-2876 A 20010206

OTHER SOURCE(S): MARPAT 137:170632

AB A method of making paper that emits light when torn and/or pressed and/or gripped and/or folded comprises the steps of coating and/or impregnating the paper with triboluminescent material. The coating and/or impregnation is applied in one or more of the following ways: (I) in an adhesive compn., (II) in a solvent followed by solvent evapn., (III) by melting the triboluminescent material such that it soaks into the paper, or (IV) by incorporating the triboluminescent material together with pulp and/or fiber during manuf. of the paper. Thus, a gift wrapping paper was manufd. by impregnating in 18.947 g of chloroform contg. 0.813g of menthyl 9-anthracene carboxylate (triboluminescent material).

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:615747 CAPLUS

DOCUMENT NUMBER: 137:155897

TITLE: Manufacture of triboluminescent materials in paper products for wrapping or gift papers

INVENTOR(S): Geddes, Norman James; Sage, Ian Charles; Bourhill, Grant Hannah; Mason, Ian Robert

PATENT ASSIGNEE(S): Qinetiq Limited, UK

SOURCE: PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002062914	A1	20020815	WO 2002-GB449	20020204
WO 2002062914	C1	20021128		
WO 2002062914	C2	20030515		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2001-2879 A 20010206

OTHER SOURCE(S): MARPAT 137:155897

AB A method of making paper that emits light when torn and/or pressed and/or gripped and/or folded comprises the steps of coating and/or impregnating the paper with triboluminescent material. The coating and/or impregnation is applied in one or more of the following ways: (I) in an adhesive compn., (II) in a solvent followed by solvent evapn., (III) by melting the triboluminescent material such that it soaks into the paper, or (IV) by incorporating the triboluminescent material together with pulp and/or fiber during manuf. of the paper. Thus, a gift wrapping paper was manufd. by impregnating in 18.947 g of chloroform contg. 0.813g of menthyl 9-anthracene carboxylate (triboluminescent material).

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:314504 CAPLUS

DOCUMENT NUMBER: 136:332810

TITLE: Recording material having a pigment-colored radiation-sensitive layer

INVENTOR(S): Doerr, Michael; Elsaesser, Andreas

PATENT ASSIGNEE(S): Agfa-Gevaert, Belg.

SOURCE: Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1199605	A1	20020424	EP 2001-521	20011008
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
DE 10051577	A1	20020606	DE 2000-10051577	20001018
US 2002068234	A1	20020606	US 2001-978148	20011016
JP 2002214775	A2	20020731	JP 2001-319372	20011017

PRIORITY APPLN. INFO.: DE 2000-10051577 A 20001018

AB The invention relates to a recording material having a substrate and a neg.-working, radiation-sensitive layer which contains a diazonium salt, at least a first polymeric binder, which is film-forming, and org. colored pigments, on the surface of which an org. polymeric dispersant has been adsorbed and which are addnl. dispersed in a second polymeric binder which does not permanently combine with the pigments chem. or phys. The first and the second polymeric binder may be the same or different. The dispersant generally has groups, in particular primary, secondary or tertiary amino groups or derivs. thereof, which act as anchor groups on

the colored pigment particles. The pigments themselves are preferably phthalocyanine pigments. As a result of the predispersing, aggregation of the pigment particles is effectively prevented so that uniform coloration of the radiation-sensitive layer is achieved. During development of the imagewise exposed recording materials, the colored pigment particles form virtually no insol. ppts. In the prepd. printing plates, the printing parts are distinguished from the substrate material through being clearly visible and having high contrast.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:253123 CAPLUS

DOCUMENT NUMBER: 136:281936

TITLE: Primary battery using aluminum or aluminum alloy as anode

INVENTOR(S): Ishii, Haruchika; Kasori, Mitsuo; Morita, Tomokazu; Takami, Norio

PATENT ASSIGNEE(S): Kabushiki Kaisha Toshiba, Japan

SOURCE: Eur. Pat. Appl., 23 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1193781	A2	20020403	EP 2001-308307	20010928
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002110153	A2	20020412	JP 2000-300987	20000929
JP 2002110183	A2	20020412	JP 2000-300994	20000929
US 2002068222	A1	20020606	US 2001-964460	20010928
PRIORITY APPLN. INFO.:			JP 2000-300987	A 20000929
			JP 2000-300994	A 20000929

AB An elec. cell using aluminum in a neg. electrode has a pos. electrode, the neg. electrode contg. aluminum or aluminum alloy, and an electrolyte arranged between the pos. electrode and the neg. electrode. The electrolyte includes: at least one ion selected from a group of a sulfate ion and a nitrate ion; and an additive. The additive is selected from an org. acid, a salt of the org. acid, a hydrate of the org. acid, an ester of the org. acid, an ion of the org. acid, and derivs. thereof. Thus, the elec. cell of the present invention using aluminum in a neg. electrode allows the improvements in the voltage and the capacity of the cell as the generation of gas depending on the self-discharge can be prevented.

L17 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:148610 CAPLUS

DOCUMENT NUMBER: 136:185476

TITLE: Surface treatment method for imparting anticorrosive property, surface-treated steel materials, and their application

INVENTOR(S): Uemura, Takayuki; Ko, Hideaki; Kashima, Kazuyuki; Kishikawa, Hiroshi

PATENT ASSIGNEE(S): Sumitomo Metal Industries Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002059076	A2	20020226	JP 2000-281942	20000918
PRIORITY APPLN. INFO.:			JP 2000-173433	A 20000609

AB The method, promoting rust layer formation resulting in prevention of further corrosion, applying resin coatings contg. 0.03-12 vol.% (based on solid content of the resins) CO32- on steel materials. The materials are usable while being embedded in concretes or buried in the ground as construction materials. Thus, a compn. contg. 45.2 vol.% binder comprising 90 vol.% butyral resin and 10 vol.% phenolic resin and 0.05 vol.% CO32- (added as Na2CO3 or NaHCO3) was applied on a blasted weather-resistant steel, showing good corrosion resistance during exposure at seashore for 5 yr.

L17 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:926924 CAPLUS

DOCUMENT NUMBER: 136:283295

TITLE: Comparative characteristics of piezo-resonance sensors for vapors of organic compounds

AUTHOR(S): Ermolaeva, T. N.; Lavrent'eva, T. L.; Milovanov, S. V.

CORPORATE SOURCE: Lipetsk. Gos. Tekh. Univ., Lipetsk, Russia

SOURCE: Mikrosistemnaya Tekhnika (2001), (8), 8-13

CODEN: MTIEBE

PUBLISHER: Izdatel'stvo Mashinostroenie

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB The sorption ability of coatings of piezoresonance sensors for diagnostics of gas environments was assessed. Values of specific sensibility, detection limit kinetic characteristics during the interaction of toxic org. compds. with film coatings were established. Sensors for the selective detection of phenols, formaldehyde, and some polyarom. compds. in the air at the level of limit concns. were offered.

L17 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:723245 CAPLUS

DOCUMENT NUMBER: 133:303590

TITLE: Recording material with pigmented radiation-sensitive layer for preparing printing plates

INVENTOR(S): Konrad, Klaus Peter; Elsasser, Andreas; Fischer, Frank; Davies, John Kynaston

PATENT ASSIGNEE(S): Agfa-Gevaert A.-G., Germany

SOURCE: Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1043627	A1	20001011	EP 2000-107067	20000404
EP 1043627	B1	20020612		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19915717	A1	20001012	DE 1999-19915717	19990408
US 6197472	B1	20010306	US 2000-532324	20000321
JP 2000321760	A2	20001124	JP 2000-106465	20000407
PRIORITY APPLN. INFO.:			DE 1999-19915717	A 19990408

AB The title material, which gives good contrast between the printing areas and the support, consists of a neg.-working radiation-sensitive compn. contg. a diazonium salt, a metal-free pigment dispersed in a polymer binder, a transparent spacer pigment with a pore vol. of .gtoreq. 1.0 mL/g, and a polymer binder. The metal-free pigment is predispersed by milling with a polymer binder that contains OH groups that are partially

or completely reacted with a di- or polycarboxylic acid so that the binder has an acid no. of 2- to 200. Thus, a treated and anodized Al support was coated with a compn. 4,4'-bis(methoxymethyldiphenyl) ether-3-methoxydiphenylamine-4-diazonium **sulfate** copolymer mesitylenesulfonate, a **polyvinyl** butyral binder (71 mol% vinyl butyral, 27 mol% vinyl alc., and 2 mol% vinyl acetate) modified. by reacting with trimellitic **anhydride** in the presence Me₃N, a pigment dispersion prepd. by milling the above polymer with Heliogen Blue D 7490, phenylazodiphenylamine, silicic acid spacer pigment and solvent, dried, exposed, and developed to give an offset printing plate with excellent contrast between the printing areas and the support.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:644218 CAPLUS

DOCUMENT NUMBER: 133:194754

TITLE: Environment-friendly enamel coating for internal wall

of building and its preparing process

INVENTOR(S): Li, Yongde; Hu, Shuzhen; Zhang, Zhiling

PATENT ASSIGNEE(S): Qinghua Univ., Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 7 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1245188	A	20000223	CN 1999-119534	19990910
CN 1109082	B	20030521		

PRIORITY APPLN. INFO.: CN 1999-119534 19990910

AB The paint is composed of film-forming material 100, pigment and filler 120-180 parts, and additives as required. The film-forming material is composed of water-sol. polymer (2-10% natural or synthetic polymer water soln.) and composite crosslinking agent (contg. a compd. with carbonyl groups 0.1-10, and a compd. with carboxyl groups 1-10% based on the wt. of hydroxy group of the water sol. polymer, and several inorg. polybasic acid mixt. with pH of 2-5). The additives contains: alcs. 0.1-1% based on wt. of the polymer; inorg. acid ester 0.001-0.01, inorg. salt (10- 20% soln.) 0.1-1.0, and org. acid salt 0.01-0.05% based on wt. of the paint. The water-sol. polymer is selected from **polyvinyl** alc., CM-cellulose and hydroxyethyl cellulose; and the compd. with carbonyl groups is selected from formaldehyde, acetaldehyde and hexyl dialdehyde; and the compd. with carboxyl groups is selected from maleic **anhydride**, **phthalic anhydride** and 2-hydroxysuccinic acid; and the acid mixt. is composed of boric acid, phosphoric acid and silicic acid. The pigments are titania and blue ultramarine or phthalocyanine blue; and the filler is composed of CaCO₃, MgCO₃ and one of CaSO₄, MgSO₄, Ca₃(PO₄)₂, Mg₃(PO₄)₂, CaSiO₃ and MgSiO₃. The alc. is selected from glycol, 1,2-propanediol, 1,3- propanediol and glycerin; and the inorg. acid ester is selected from tri-Bu phosphate, di-Bu phthalate, di-Et adipate; and the inorg. salt is selected from sodium tripolyphosphate and sodium polymetaphosphate; and the org. acid salt is selected from sodium benzoate and sodium sorbate. The process comprises making glue at 80-95.degree. and crosslinking at pH of 2-5, mixing raw material and milling to obtain the coating with fineness of 2-10 .PHI.mm, viscosity of 5-10 x 10⁴ cps and pH of 6-8.5.

L17 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:659153 CAPLUS

DOCUMENT NUMBER: 131:266088

TITLE: Magnetic recording medium with low error rate

INVENTOR(S): Kaneno, Kimihiko; Nakiri, Kazuhiko; Doi, Tsugihiko;
 Soui, Tadashi
 PATENT ASSIGNEE(S): Hitachi Maxell Ltd., Japan
 SOURCE: Eur. Pat. Appl., 17 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 949607	A2	19991013	EP 1999-106771	19990406
EP 949607	A3	19991110		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.: JP 1998-92993 19980406

AB The medium consists of a nonmagnetic substrate, an undercoat, and a magnetic film contg. magnetic powder and a binder. The roughness, squareness, and surface resistance ranges are specified.

L17 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1994:55986 CAPLUS

DOCUMENT NUMBER: 120:55986

TITLE: Mixed alcohols for plasticizers and carboxylate ester plasticizers using them

INVENTOR(S): Nishii, Sadao; Harada, Hiroshi; Hirose, Hiroaki

PATENT ASSIGNEE(S): Chisso Corp, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05214159	A2	19930824	JP 1992-48106	19920204

PRIORITY APPLN. INFO.: JP 1992-48106 19920204

AB Mixed alcs. contg. 2-propyl-1-heptanol (I) 95-98.5, 4-methyl-2-propyl-1-hexanol (II) 1.5-5, and 2-methyl-2-ethyl-1-heptanol (III) .ltoreq.0.5% are esterified with carboxylic acids or **anhydrides** to give ester plasticizers, giving plasticized resins (e.g. PVC) with good heat, oil, and water resistance. Thus, hydroformylation of 1-butene, aldol condensation of the obtained n-BuCHO-2-methylbutyraldehyde mixt., and subsequent hydrogenation gave an alc. mixt. contg. I 98.3, II 1.6, and III 0.002%, 163 kg of which was esterified with 62 kg **phthalic anhydride** in the presence of tetraisopropoxytitanium at 220.degree. to give 174.7 kg phthalate ester mixt. A mixt. of SL (PVC) 100, the ester mixt. 50, tribasic Pb **sulfate** 4, and Pb stearate 1 part was roll kneaded at 175.degree., preheated at 185.degree., and pressed at 150 kg/cm2 for 3 min to give a 1-mm sheet showing wt. change -0.1% after 4 h in oil at 70.degree. and -0.10% after 48 h in water at 100.degree..

L17 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1993:153155 CAPLUS

DOCUMENT NUMBER: 118:153155

TITLE: Non-bituminous sound-deadening material

INVENTOR(S): Ball, Graeme Matthew

PATENT ASSIGNEE(S): Tri-Tex Australia Pty. Ltd., Australia

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

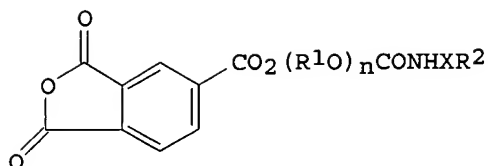
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9302021	A1	19930204	WO 1992-AU375	19920723
W: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
AU 9223677	A1	19930223	AU 1992-23677	19920723
AU 665016	B2	19951214		
EP 596972	A1	19940518	EP 1992-916406	19920723
EP 596972	B1	20000308		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
AT 190295	E	20000315	AT 1992-916406	19920723
JP 3360823	B2	20030107	JP 1993-502450	19920723
US 5639545	A	19970617	US 1994-182086	19940112
PRIORITY APPLN. INFO.:			AU 1991-7351	A 19910723
			WO 1992-AU375	A 19920723

AB The material comprises a bitumen-free elastomer-contg. polymeric component (e.g., nitrile rubber and polyvinyl chloride), a filler (e.g., CaCO₃, barytes, talc, mica, MgCO₃, or SiO₂), a compatibilizing agent (e.g., ricinoleic acid), and a tackifier (e.g., pine rosin). The material is manufd. in the form of sheets or pads, which are suitable as a coating for metal panels.

L17 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1989:240242 CAPLUS
DOCUMENT NUMBER: 110:240242
TITLE: Photosensitive composition containing diazonium salt polycondensation product and acid anhydride -polymer reaction product
INVENTOR(S): Pawlowski, Georg; Hultzs, Guenter; Mack, Gerhard
PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 15 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3644163	A1	19880707	DE 1986-3644163	19861223
EP 272549	A2	19880629	EP 1987-118278	19871210
EP 272549	A3	19880921		
EP 272549	B1	19920311		
R: DE, FR, GB				
JP 63172154	A2	19880715	JP 1987-321632	19871221
US 4840868	A	19890620	US 1987-135448	19871221
PRIORITY APPLN. INFO.:			DE 1986-3644163	19861223
OTHER SOURCE(S):		CASREACT 110:240242		

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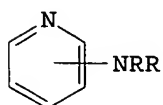
AB A photosensitive compn. contains a diazonium salt polycondensation product, and a nonphotosensitive binder polymer which contains carboxylic groups in the side chains, is sol. in or at least capable of swelling in aq. alk. soln., and is a reaction product of an org. polycarboxylic acid **anhydride** and a OH-contg. polymer, wherein the acid **anhydride** has the formula I [R1 = C2-6 alkylene; R2 = H, alkyl, cycloalkyl, aryl, heteroyl; X = bond, CH2, SO2, OPR3; R3 = alkyl, alkenyl, aryl; n = 1-6]. The compn. has improved storage stability and developability, and is used in prepg. printing plates. Thus, diazabicyclo[2.2.2]octane was reacted with Bu isocyanate. The urethane alc. thus obtained was further reacted with 4-chloroformyl **phthalic anhydride** and pyridine to obtain 2-(butylaminocarbonyloxy)ethyl trimellitic acid **anhydride** ester (II). A photosensitive compn. contained a reaction product of II with a **polyvinyl** butyral and a reaction product of 3-methoxy-diphenylamine-4-diazonium **sulfate** with 4,4'-bis-methoxymethyldiphenyl ether. A printing plate prepd. by using the above compn. produced .gtoreq.80,000 good prints.

L17 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1987:544898 CAPLUS
 DOCUMENT NUMBER: 107:144898
 TITLE: Photosensitive polymer for photogravure on metals
 INVENTOR(S): Chiron, Gerard; Levesque, Guy
 PATENT ASSIGNEE(S): Centre National de la Recherche Scientifique, Fr.
 SOURCE: Fr. Demande, 12 pp.
 CODEN: FRXXBL
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2572408	A1	19860502	FR 1984-16493	19841029
FR 2572408	B1	19870206		
WO 8602743	A1	19860509	WO 1985-FR306	19851029
W: JP, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
EP 198058	A1	19861022	EP 1985-905412	19851029
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 62501036	T2	19870423	JP 1985-504795	19851029
PRIORITY APPLN. INFO.:			FR 1984-16493	19841029
			WO 1985-FR306	19851029

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AB The title polymer is a reaction product of a deriv. of partially

acetylated poly(vinyl alc.) esterified with a carboxylic or sulfonic acid contg. an azido or azidosulfonylphenyl group and a C1-3 alkyl or benzyl halide or **sulfate**. The polymer is produced by reaction of 1-25% partially acetylated poly(vinyl alc.) with a carboxylic or sulfonic acid **anhydride** or chloride in the presence of I (R and R1 = C1-4 alkyl which can form a heterocyclic ring with N) as catalyst. Thus, to a soln. of Rhodovial 4/125 95.7 g in DMSO 1100 mL was added Et3N 67 mL, NaOAc (anhyd.) 40 g, 4-dimethylaminopyridine 1 g, **phthalic anhydride** 109 g, and 3-azidophthalic **anhydride** 46 g. After 4 h of shaking di-Me **sulfate** 37 mL was added. The mixt. was then shaken for 16 h 30 min, MeOH 80 mL added drop-wise, and the mixt. poured into 0.6N HCl. The ppt. was 248 g and had 35% of the acid groups methylated. A soln. of the above polymer in 1:1 Bu glycol and Et glycol was spread on a Cu plate and dried to obtain a 2 g/m2 thickness. The dried plate was irradiated with UV light behind a mask and developed in Na3PO4 soln. After washing, the Cu plate was etched with FeCl3 (200 g/L) and stripped with Na metasilicate (10-20 g/L). The resoln. of engraving, i.e., the min. length of a line that can be engraved was 0.05 mm for a line of that length.

L17 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1984:8629 CAPLUS
DOCUMENT NUMBER: 100:8629
TITLE: Paint
INVENTOR(S): Ryzhov, V. A.; Mnatsakanov, S. S.; Kalas, E. E.; Nikitina, S. G.; Gromov, V. V.; Rozenberg, M. E.; Zaporozhets, V. D.; Damaskina, L. N.; Savchenkova, V. P.; et al.
PATENT ASSIGNEE(S): USSR
SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1983, (23), 84.
CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 1024489	A1	19830623	SU 1980-2970240	19800801

PRIORITY APPLN. INFO.: SU 1980-2970240 19800801

AB The paint with good gloss and protective properties contains 230-445 parts aq. dispersion based on poly(vinyl acetate) [9003-20-7] stabilized with Na salts of sulfated polyglycol ethers of alkylphenols with a modifying additive comprising drying oils, varnishes based on glyptal and pentaerythritol-**phthalic anhydride** resins modified with oils, and rubber latexes (based on wt. of dry substance) in addn. to pigments 100, fillers 5-30, thickening agent 2-9, dispersing agent 0.7-1.9, coalescing additive 1.1-13.0, antiseptic 0.7-1.7, and H2O 300-500 wt. parts.

L17 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1979:56005 CAPLUS
DOCUMENT NUMBER: 90:56005
TITLE: **Polyvinyl** chloride wire insulation made conductive at elevated temperatures by the use of additives
INVENTOR(S): Rogers, Charles H.
PATENT ASSIGNEE(S): Continental Oil Co., USA
SOURCE: U.S., 5 pp. Cont-in-part of U. S. 4,098,711.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4126568	A	19781121	US 1977-796780	19770513
US 4098711	A	19780704	US 1976-671217	19760329
PRIORITY APPLN. INFO.:			US 1976-671217	19760329

AB The addn. of compds. as nonylphenoxy poly(ethyleneoxy)ethanol (I) [9016-45-9], metallic salts of alc. **sulfates**, mixed ortho, para sulfonamides, and liq. crystal compds. made flexible PVC [9002-86-2] insulation for wire conductive at elevated temps., thus activating a sensing conductor and eliminating thermostatic controls, e.g., in elec. blankets. Thus, a compn. comprising PVC 100, esterified **phthalic anhydride** 57, CaCO₃ 38, dibasic Pb phthalate 3, Sb₂O₃ (25%) complex 3, basic Pb silicate **sulfate** 3, mineral oil 0.4, stearic acid 0.25, antioxidant 0.05, and I 0.04 part had vol. resistivity of 6.2 .times. 10¹² .OMEGA.-cm at 23.degree. and 5.5 .times. 10¹⁰ .OMEGA.-cm at 54.degree. as compared with 6.8 .times. 10¹³ and 1.0 .times. 10¹², resp., for a similar compn. contg. no I.

L17 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1954:7365 CAPLUS
 DOCUMENT NUMBER: 48:7365
 ORIGINAL REFERENCE NO.: 48:1414a-f
 TITLE: Branched-chain primary **sulfate** esters
 PATENT ASSIGNEE(S): Standard Oil Development Co.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 693390		19530701	GB	

AB A process is described for the prepn. of primary **sulfate** esters of the type RCH₂CH₂OSO₂OH by combining ethylene with a tertiary olefin, in the presence of conc. H₂SO₄. Alkylated ethanols result from hydrolysis of these **sulfates**. Thus, isobutylene was fed, over a 3-hr. period, to a reactor contg. H₂SO₄ 95.5% by wt. at -15.degree., heptane as an inert diluent (vol. ratio of heptane: H₂SO₄ = 6:1), and ethylene, at a partial pressure of about 115 lb./sq. in. gage. When the ext. strength, defined as the mole. of **sulfate** produced per mole. of H₂SO₄ used, reached the desired level of 0.5, the acid layer was withdrawn. The mixt. of **sulfate** and H₂SO₄ was neutralized with NaOH (or Na₂CO₃) thereby converting the **sulfate** to the Na salt. The salt was extd. with alc., the solvent removed, and the salt reacidified to produce the **sulfate**. The 3,3-dimethylbutyl **sulfate** isolated was an oily liquid, d. 1.14 (20.degree.), n_{20D} 1.42, neutralization equiv. 188 (calcd. 182.2). Hydrolysis of the **sulfate** produced 3,3-dimethyl-1-butanol, b₂₀ 142.5.degree., n_{20D} 1.4142, approx. 60% yield, based on isobutylene. Similarly, 3,3-dimethyl-1-hexanol was produced in approx. 35% yield from mixed 2-methylpentene (80% 2-methyl-2-pentene and 20% 2-methyl-1-pentene). An octanol mixt. of the type C₆H₁₃CH₂CH₂OH was made in 23.6% yield from mixed hexenes contg. 83.8% unsaturates having a boiling range of 61-71.degree., in which the ratio of tertiary-secondary olefins was approx. 35:1. A C₈ 2-cycloalkylethanol was prepd. from 1-methylcyclopentene in 21.5% yield. 3,3-Dimethylbutyl acetate is useful as a lacquer solvent. The dioctyl phthalate ester derived from **phthalic anhydride** and the mixed C₆H₁₃CH₂CH₂OH can be employed as a plasticizer for polyvinyl chloride type plastics and others. The primary **sulfate** esters may be treated with hydrogen halides to produce the corresponding primary org. halide by treating the acid ext. layer comprising the primary **sulfate** ester with anhyd. hydrogen halide at temps. preferably between 25 and

50.degree.. It is sometimes advantageous to maintain a hydrogen halide pressure ranging from 1 to 4 atms. over the acid layer. The org. halides are insol. in H₂SO₄ and therefore will settle out as a sep. layer. It is also possible to have an inert solvent present during the hydrohalogenation to dissolve the org. halide as produced. The solvent may be the same as the satd. hydrocarbon diluent present in the reactor during the production of the **sulfate** ester; however, it is necessary to free the system of ethylene prior to the hydrohalogenation step.

L17 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1953:52692 CAPLUS

DOCUMENT NUMBER: 47:52692

ORIGINAL REFERENCE NO.: 47:8933g-i,8934a-i,8935a-g

TITLE: American Society for Testing Materials, Standards, 1952. IV. Paint, naval stores, wood, sandwich constructions, building constructions, fire tests (1952), 1152 pp.

SOURCE:

DOCUMENT TYPE: Book

LANGUAGE: Unavailable

AB Standards or tentative standards, adopted or revised in 1952 are given for: ZnO and leaded ZnO; ZnS pigments; basic carbonate and basic **sulfate** white leads; CaCO₃ and TiO₂ pigments; test for relative hiding power of white pigments in a linseed-oil vehicle; chem. analysis and tinting strength of white pigments; lampblack; bone and C blacks; black synthetic Fe oxide; test for acetone ext. in black pigments; red and brown Fe oxide pigments; ocher; raw and burnt umber; raw and burnt sienna; Venetian red; chem. analysis of yellow, orange, red, and brown pigments contg. Fe and Mn; test for common properties of certain pigments; Cu phthalocyanine, Fe, and ultramarine blues; chem. analysis of blue pigments; basic **sulfate** blue lead; pure and reduced chrome greens; Cr oxide green; chem. analysis of yellow, orange, and green pigments contg. Pb chromate and Cr oxide green; chrome yellow and orange; Zn yellow (Zn chromate); hydrated yellow Fe oxide; chem. analysis of Zn chromate yellow; red lead; pure para red and toluidine red toners; chem. analysis of dry red lead; testing para red and toluidine red pigments; powder and paste Al pigments for paints; Cu powder for use in antifouling paints; Au-bronze powder; Zn dust; sampling and testing of Al powder and paste; chem. analysis of Zn dust; BaSO₄, Al silicate, diatomaceous silica, Mg silicate, mica, and pumice pigments; methods of analysis of BaSO₄, Al silicate diatomaceous silica, Mg silicate, and mica pigments; Cu₂O and HgO for use in antifouling paints; chem. analysis of dry Cu₂O, HgO, and Cu pigments; sieves for testing purposes; tests for bleeding of pigments and coarse particles in pigments, pastes, and paints; fineness of dispersion of pigment-vehicle systems; tests for hygroscopic moisture in and oil absorption of pigments; test for pH of aq. solns. with glass electrode; test for sp. gr. of pigments; test for tinting strength and mass color of color pigments; test for water in petroleum products and other bituminous materials; raw tung, oiticica, raw soybean, raw or refined perilla, raw and boiled linseed, and dehydrated castor oils; liquid paint driers; spirits of turpentine; petroleum and heavy petroleum spirits; drying oils; liquid driers; sampling and testing of turpentine; aniline point and mixed aniline point of hydrocarbon solvents; distn. of gasoline, naphtha, kerosine, and similar petroleum products; flash point; definitions of terms relating to paint, varnish, lacquer, and related products; dry bleached shellac; orange shellac and other lacs; orange shellac and other Indian lacs for elec. insulation; shellac varnishes; sampling and analysis of shellac; test for color of orange shellac; test for shellac used for olec. insulation; varnishes and varnishes used for elec. insulation; total Cl in **polyvinyl** chloride polymers and copolymers used for surface coatings; total N in resins for surface coatings; **phthalic anhydride** content of alkyd resins and resin solns.; test for solvent tolerance of amine resins; prepn. of steel panels for testing paint, varnish, lacquer, and related products; producing films of uniform

thickness of paint, varnish, lacquer, and related products on test panels; test for dry-film and wet-film thickness of paint, varnish, lacquer, and related products; test for dry-film thickness of nonmagnetic coatings of paint, varnish, lacquer, and related products applied on magnetic base; test for abrasion resistance of coatings of paint, varnish, lacquer, and related products; test for viscosity of paints, varnishes, and lacquers; water-immersion test of org. coatings on steel; acetone; AmOH; AmOAc; AmOAc made from fusel oil; industrial 90 C₆H₆ for use in paint, varnish, lacquer, and related products; n- and sec-BuOAc; n- and sec-BuOH; raw castor oil; dibutylphthalate; EtOAc; monoethylene glycol and its acetate ester; ethylene glycol monobutyl ether; iso-Pr acetate and alc.; MeOH; Me Et ketone; Me isobutyl ketone; tricresyl phosphate; sol. nitrocellulose; industrial grades of toluene, xylene, or solvent naphtha for use in paint, varnish, lacquer, and related products; tests for cellulose acetate, color of clear liquids, and distn. range of lacquer solvents; test for elongation of attached lacquer coatings; tests for ethylcellulose and heptane no. and kauri-butanol value of hydrocarbon solvents; sampling and testing of lacquer solvents and diluents; ester value of tricresyl phosphate; tests for nitrocellulose clear lacquers and lacquer enamels, sol. nitrocellulose-base solns., and nitrocellulose dilg. power of hydrocarbon solvents; tests for purity of acetone and Me Et ketone, and temp. change resistance of clear nitrocellulose lacquer films applied to wood; evaluating degree of resistance of traffic paint to abrasion, erosion, or a combination of both, in road-service tests; lab. test for, and evaluation of degree of resistance of traffic paint to bleeding; evaluating degree of resistance of traffic paint to chipping; tests for no-pick-up time, light sensitivity, and night visibility of traffic paints; conducting road service tests on traffic paint; evaluating degree of settling of traffic paint; tests for crushing resistance, roundness, and sieve analysis of glass spheres; asphalt-base and bituminous emulsions for use as protective coatings for metal; linseed-oil putty for glazing; chem. analysis of white linseed-oil paints; test for consistency of exterior-house and enamel-type paints; relative dry hiding power of paints; thickness of solid elec. insulation, spectral characteristics, and color of objects and materials; prepn. of MgO standard for spectral reflectivity; test for 60-degree specular gloss; daylight 45-degree, 0-degree luminous directional reflectance of paint finishes; softening point by ring and ball app.; definitions of terms relating to sp. gr. and sieve screens; wood to be used as panels in weathering tests of paint and varnishes; conducting exterior exposure tests of paints on wood and on steel; single and multiple panel forms for recording results of exposure tests of paints; evaluating resistance to blistering of paints on metal when subjected to immersion or other exposure to moisture or liquids; evaluating degree of resistance to chalking, checking, cracking, erosion, and flaking of exterior paints of the linseed-oil type; evaluating degree of resistance to rusting obtained with paint on Fe or steel surfaces; salt-spray testing; characteristics of C-arc-accelerated weathering unit; operating light- and water-exposure app. for testing paint, varnish, lacquer, and related products; definitions of terms with procedures related to conditioning and weathering; sampling and grading rosin; acid no. and sapon. no. of rosin; ash, Fe, unsaponifiable matter, and volatile oil in rosin; rosin acids in fatty acids; toluene-insol. matter in rosin; sampling and testing dipentene, pine oil, pine tars, and pine-tar oils; test for water in liquid naval stores; testing of tall oil and rosin oils; definitions of terms relating to naval stores and related products; round timber piles; wooden paving blocks for exposed pavements; creosoted end-grain wood-block flooring for interior use; test for establishing structural grades of lumber; test for small clear specimens of timber; static tests of timbers in structural sizes and of wood poles; test of veneer, plywood, and other glued veneer constructions; evaluating properties of building boards; test for integrity of glue joints in laminated wood for exterior service; tests for ash, holocellulose, and lignin in wood; test for .alpha.-cellulose in cellulosic materials; prepn. of extractive-free wood; test for methoxyl groups in wood and related

materials; tests for alc.-C₆H₆ soly., ether soly., 1% NaOH soly., and water soly. of wood; test for combustible properties of treated wood; fire tests of door assemblies, building construction, and materials; definitions of terms relating to timber, veneer, and plywood; nomenclature of domestic hard- and softwoods; creosote; creosote-coal tar soln.; ZnCl₂; chromated ZnCl₂; tanalith; sampling and testing creosote; tests for coke residue, distn., and sp. gr. of creosote; tests for C₆H₆-insol. matter and water in creosote; test for 38 15.5 C sp. gr. of creosote fractions; test for tar acids in creosote and creosote coal-tar solns.; vol. and sp. gr. correction tables for creosote and coal tar; chem. analysis of ZnCl₂, chromated ZnCl₂, and tanalith; definitions of terms relating to timber preservatives; tests for d. and water absorption of core materials for structural sandwich constructions; tension and shear tests in flatwise plane of sandwich constructions; conducting strength tests on panels for building construction; test for truss assemblies; lab. measurement of airborne-sound transmission loss of building floors and walls; test for fire-hazard classification of building materials; ASTM thermometers; verification of testing machines and of calibration devices for verifying testing machines; designating significant places in specified limiting values; analysis by microscopical methods for particle-size distribution of particulate substances of subsieve sizes; and definitions of terms relating to methods of testing and theological properties of matter. Tentative revisions submitted in 1952 are given for: pure para red toner (light); sampling and analysis of shellac, lacquer solvents, and diluents; methods of testing varnishes; and methods of fire tests of building construction and materials.

L17 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1950:14812 CAPLUS
 DOCUMENT NUMBER: 44:14812
 ORIGINAL REFERENCE NO.: 44:2911h-i,2912a-g
 TITLE: 3,5,5-Trimethylhexanol and its derivatives
 AUTHOR(S): Bruner, W. M.
 CORPORATE SOURCE: E. I. du Pont de Nemours & Co., Inc., Wilmington, DE
 SOURCE: Journal of Industrial and Engineering Chemistry
 (Washington, D. C.) (1949), 41, 2860-4
 CODEN: JIECAD; ISSN: 0095-9014
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

AB The alc. 3,5,5-trimethyl-1-hexanol (I) is prepd. from diisobutylene, CO, and H (cf. Gresham, Brooks, and Bruner, C.A. 42, 4196h). Its narrow boiling range and data presented for mass spectrometer patterns indicate that it is a single substance, b760 193-4.degree., b150 142.degree., f.p. below -70.degree., d425 0.8236, nD25 1.4300; 3,5-dinitrobenzoate, m. 62.degree.. I forms azeotropes with water, b760 99.5.degree. (83% water), b95 50.5.degree. (91% water), is insol. in water, sol. in the common org. solvents. The following esters of I with monobasic acids were prepd., [b.p., and n (at 25.degree. except where indicated) given]: acetate, b760 209.degree., 1.4200; acrylate, b0.4 55.degree., b0.75 59.degree., 1.4340; formate, b760 195.degree., b10 73.degree., 1.4231 (20.degree.); hydroxyacetate, b1 78.degree., 1.4380; methacrylate, b4 71-78.degree., b1 56-63.degree., 1.4365; oleate, b2 220.degree., 1.4540; phenylpropionate, b2 140.degree. 1.4796; stearate, b1 200.degree., 1.4462; stearoxyacetate, b2 210.degree., 1.4475; 3,5,5-trimethylhexanoate, b3 130.degree., 1.4339. Esters of polybasic acids: aconitate, b2 210-30.degree., 1.4592; adipate, b1 189.degree., 1.4454; azelate, b1 199.degree., 1.4480; bicyclo(2.2.1)-5-heptene-2,3-dicarboxylate, b2 181.degree., 1.4540; citrate, b5 168.degree., 1.4530; diglycolate, b3 200.degree., 1.4451; ethylene diglycolate, b1 195.degree., 1.4452; .beta.-ethylsuberate, b3-4 195-205.degree., 1.4495; fumarate, b2 180.degree., 1.4532; glutarate, b3 191.degree., 1.4443; maleate, b1 169.degree., 1.4519; nitrilotriacetate, b2 194-205.degree., 1.4528; orthosilicate, b1 210.degree., 1.4379; oxalate, b4 175-6.degree., 1.4408; phthalate, b2 202.degree. 1.4802; phosphate, b2 206.degree., 1.4420; pyromellitate, b1 245-250.degree.,

1.4770; sebacate, b2 215.degree., 1.4490; tartrate, b2 206.degree., 1.4519; terephthalate, b2 205.degree., m. 85.degree.; tetrahydrophthalate, b1.5 197-8.degree., 1.4628; .beta..beta.'-thiodipropionate, b2 194-200.degree., 1.4633. Data are presented on the properties of esters of I as plasticizers with polyvinyl chloride. Esters of I with unsatd. acids are converted to oil-sol. resins, and others can be used advantageously as machine and instrument oils, especially at low temps. Trimethylhexyl sodium **sulfate** (II), prepd. by treating I with either ClSO₃H or dioxane-SO₃, and then with aq. NaOH, has hydrotropic properties, e.g. BuOH is completely miscible with 10 and 25% aq. II. I undergoes the Guerbet reaction (C.A. 4, 2946) with its Na salt to form the octadecanol, C₈H₁₇CH₂CH(C₇H₁₅)CH₂OH (III) (71% yield), b2 121-2.5.degree., nD₂₅ 1.4512, liquid at ordinary temps. I is dehydrogenated with air and a Ag catalyst at 410-430.degree. to 3,5,5-trimethylhexanol (IV) (62% yield), b760 167.degree., nD₂₅ 1.4189, d₄₂₅ 0.8174. IV reacts as follows: reduction with H on Ni gives I; oxidation with mol. O at 50.degree. gives 3,5,5-trimethylhexanoic acid (V), b4 85.degree., nD₂₅ 1.4268; reductive amination gives 3,5,5-trimethylhexylamine, b20 70.degree., nD₂₅ 1.4268; reductive thiolation with S and H gives 3,5,5-trimethylhexyl mercaptan, b20 81.degree., nD₂₅ 1.4518; aldolization-dehydration gives 5,7,7-trimethyl-2-(1,3,3-trimethylbutyl)-2-octenal, b4 140.degree., nD₂₅ 1.4570; addn. of HCHO, followed by reduction of the carbonyl, group gives 2,2-dimethylol-3,5,5-trimethyl-1-hexanol, m. 111.degree.. V gives the following reactions: with Ac₂O, 3,5,5-trimethylhexanoic **anhydride**, b1 116.degree., nD₂₅ 1.4371; with SOCl₂, 3,5,5-trimethylhexanoyl chloride, b760 188-90.degree., nD₂₅ 1.4340; with NH₃ at 200.degree. in the presence of B phosphate, 3,5,5-trimethylhexanamide, m. 96.degree. or at 350.degree., 3,5,5-trimethylhexanenitrile, b10 110.degree., nD₂₅ 1.4225. Catalytic hydrogenation of 5,7,7-trimethyl-2-(1,3,3-trimethylbutyl)-2-octen-1-ol gives an octadecanol identical with III. I on dehydration over alumina at short contact times gives 95% bis(3,5,5-trimethylhexyl) ether, b9 137-8.degree., nD₂₅ 1.4322. With longer contact times, I is dehydrated to olefins, giving 68% of product boiling in the C₄ range. I also reacts as follows: with 1,3-dioxolane to give 3,5,5-trimethylhexanol modified glycol polyformal, C₉H₁₉O(CH₂OCH₂CH₂O)₃H, nD₂₅ 1.1162; with urea to give 3,5,5-trimethylhexyl carbamate, b1 97.degree., nD₂₅ 1.4462; with HCl to give 3,5,5-trimethylhexyl chloride (VI), b760 179-80.degree., nD₂₅ 1.4304; with HBr to give the bromide b11 70-71.degree., nD₂₅ 1.4510. VI with KSCN gives the thiocyanate, b12 122.degree., nD₂₅ 1.4638.

L17 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1938:31717 CAPLUS

DOCUMENT NUMBER: 32:31717

ORIGINAL REFERENCE NO.: 32:4361f-i,4362a-c

TITLE: The chemical identification of artificial resins used in lacquers and varnishes

AUTHOR(S): Wagner, H.; Schirmer, Herm.

SOURCE: Farben-Zeitung (1938), 43, 131-3,157-8

CODEN: FAZEAO; ISSN: 0367-1755

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB A rigorous identification is not always possible. Coumarone resin. The dry distillate gives an orange Storch-Morawski test. If colophony interferes by giving a purple color, a milky purple fluorescence under ultraviolet light indicates the presence of coumarone resin. Aldehyde resins. After first sepg. the resin from saponifiable material and nitrocellulose, dry distn. produces a suffocating odor resembling that of HOAc. Ketone resin. (Cyclohexanone resin). The isolated unsaponifiable resin is detected by the color reaction with diphenylamine **sulfate** soln. and by a winered Storch-Morawski test. Urea-formaldehyde resins. After removal of solvents, the sample on refluxing with concd. KOH or NaOH gives NH₃, or with 20% H₂SO₄ it gives CH₂O. Phenol resins. After removal of solvents, alkali fusion liberates phenol, which forms red dyes on coupling with diazotized p-nitroaniline or with Fast Red Salt 3 GL.

Phthalate resins. (Glyptals, alkyds, etc.). Dry distn. produces **phthalic anhydride** crystals and the suffocating odor of decomposing glycerol. The phthalate radical can also be detected by the resorcinol test or as K phthalate (cf. C. A. 31, 7271.8). Colophony-maleic acid resins. Attempts at detecting the maleate radical by sapon. and pptn. with $\text{Ba}(\text{OH})_2$ gave uncertain results. The Storch-Morawski test gives a wine-red color rapidly going to brown. However, cyclohexanone resin gives a similar test and ester gum gives a violet color which masks the wine-red color. Vinyl type of resin. Dry distn. yields condensates having characteristic fluorescence under ultraviolet light. Such distillate is sol. in concd. caustic soln. only if derived from polyacrylic resins. **Polyvinyl** esters saponify to **polyvinyl alc.**, which shows a large increase in viscosity when its soln. in a little hot water is treated with cold satd. borax soln. Chlorinated rubber. Fusion with a mixt. of K_2CO_3 and Na_2CO_3 produces a typical odor and converts the Cl into ionizable form readily detectable with AgNO_3 . Chlorinated diphenyl and vinyl chloride resins also give chloride ion but not the typical odor. Nitrocellulose. The nitrocellulose is first pptd. with benzene, then redissolved and finally poured as a layer on a 1% soln. of diphenylamine **sulfate**. A blue ring is formed. Cellulose acetate. Heating with dil. H_2SO_4 gives an odor of HOAc . Cellulose ethers. Simple tests have not been developed. Benzylcellulose on heating gives an odor of BzH . Tabulations of Storch-Morawski tests and results of examn. of resins, etc., under ultraviolet light are given.

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